

Application/Control Number: 09/891,326
Art Unit: 1764

Page 5

1974) and who is presumed to know something about the art apart from what references alone teach (*In re Bode*, 193 USPQ 12, (16) CCPA 1977); and who is motivated by economics to depart from the prior art to reduce costs consistent with the desired product characteristics. *In re Clinton* 188 USPQ 365, 367 (CCPA 1976) and *In re Thompson* 192 USPQ 275, 277 (CCPA 1976).

12. Claim 1 is rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 97/43528.

With respect to claim 1, WO 97/43528 discloses a catalytic muffler comprising:

a housing having a first chamber, and a second chamber fluidly communicating through a catalyst bearing reactor bed interspersed therebetween; said reactor bed having a plurality of discrete passages extending longitudinally therethrough to provide fluid communication between the first and second chambers;

a first baffle assembly in said first chamber extending between the housing and the catalyst bed;

an inlet passage extending through said housing into said first chamber;

an outlet passage extending through said housing into said second chamber;

a second baffle assembly in said second chamber extending between the catalyst bed and the housing;

said first and second baffle assemblies acting in conjunction with said housing and said catalyst bed to define a flow passage through said housing from the inlet passage to said outlet passage requiring two sequential passes through said reactor bed with each subsequent of said passes being through a discrete, laterally adjacent zone of said reactor bed and opposite in

Application/Control Number: 09/891,326

Page 6

Art Unit: 1764

direction to an immediately preceding of said passes (see, for example, Fig. 10; page 2, line 29 to page 3, line 7; page 4, lines 22-24; page 16, line 31 to page 17, line 13).

Although WO 97/43528 shows only two sequential passes in Fig. 10, WO 97/43528 further discloses that more flow reversals can be accommodated internally in the silencer/monolith combination (page 4, lines 22-24) and therefore meet the phrase of "at least three sequential passes" of the instant claim.

In any event, the use of more than two sequential passes are within the purview of one having ordinary skill in the art during routine experimentation and optimization of the system thereof as set forth on page 4, lines 22-24 of the WO 97/43528 and since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

13. Claims 2-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 97/43528 in view of FR 2,226,865.

With respect to claims 2-4, 8, the apparatus of WO 97/43528 is substantially the same as that of the instant claims, but fails to disclose whether at least one of the inlet and outlet passages may extend through a side of the housing.

However, FR 2,226,865 discloses the conventionality of providing a muffler in which at least one of the inlet and outlet passages extends through a side or end or ends of the housing.

It would have been obvious to one having ordinary skill in the art to alternately select an appropriate location for at least one of the inlet and outlet passages, such as the ones taught by FR 2,226,865 in the apparatus of WO 97/43528 on the basis of its suitability for the intended use

Best Available Copy

Proposed Revised Claim 1 for Discussion Purposes

1. (currently amended) A catalytic muffler comprising:

a housing having a first chamber, and a second chamber fluidly communicating through a catalyst bearing reactor bed interspersed therebetween; said reactor bed having a first face facing directly into said first chamber, a second face facing directly into said second chamber and a plurality of discrete flow passages extending longitudinally therethrough between said first and second faces to provide direct fluid communication between said first and second chambers;

a first baffle assembly ~~in said first chamber~~ extending longitudinally through said first chamber between said first face of said catalyst bed and said housing;

an inlet passage extending through said housing into said first chamber;

an outlet passage extending through said housing into one of said first chamber and said second chamber;

a second baffle assembly ~~in said second chamber~~ extending longitudinally through said second chamber between said second face of said catalyst bed and said housing;

said first and second baffle assemblies acting in conjunction with said housing and said reactor bed to define a flow passage through said housing from said inlet passage to said outlet passage requiring at least three sequential passes through said reactor bed directly between said first and second chambers with each subsequent of said passes being through a discrete, laterally adjacent zone of said reactor bed and opposite in direction to an immediately preceding of said passes.